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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,006

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Koji Kawaguchi

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EXAMINER

HOLLWEG, THOMAS A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,006	Applicant(s) KAWAGUCHI ET AL.	
	Examiner Thomas A. Hollweg	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☒ Claim(s) 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgment of Amendment

1. Applicant's Amendment, received July 24, 2008, is acknowledged. No claims are added or canceled. Claims 8-14 are currently pending.
2. Amendment to the specification, clarifying that the number 104 is not a reference number. Objections to the drawings are withdrawn.
3. Amendments to claims 13 and 14 clarifying the claims are acknowledged. Objections to claims 13 and 14 are withdrawn.

Claim Objections

4. The following claims are objected to because of the following informalities:
 - a. Claim 8, the phrase "the stress-relieving layer being patterned to have walls that are disposed at the edges of the color-converting filters" is unclear and confusing. Specifically, the word "at" is not descriptive enough to clearly describe the intended relationship between these two elements. Guided by applicant's drawings, examiner believes that applicant intends that this phrase mean that the walls in the stress-relieving layer are in a position corresponding to the edges of the color-converting filters, as seen in applicant's figures 1 and 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al., U.S. Patent No. 6,815,723 B2, in view of Kimura, U.S. Patent No. 6,611,108 B2.

7. With regard to claim 8, in figure 1B, Yamazaki discloses an organic electroluminescent display comprising: (a) an organic light-emitting device including, in the recited sequence, a substrate (not labeled) thin film transistors (TFT1, TFT2, TFT3) that each have a source and drain, anodes or cathodes (11, 12, 13) that include an electrically conductive thin film material and are each connected to the source or the drain on a corresponding one of the thin film transistors, an organic electroluminescent light-emitting layer (17, 18, 19), an upper transparent electrode (20) that is a cathode or anode and includes a transparent electrically conductive material, and at least one passivation layer (33) on the upper transparent electrode (col. 7, lines 1-45; col. 9, lines 26-47); (b) a color-converting substrate that comprises a transparent supporting substrate (30), and color-converting filters (31b-d) that comprise color filter layers alone, or color filter layers and color-converting layers and are disposed on the supporting substrate (30), the color-converting filters (31b-d) having edges (col. 7, lines 46-60); (d) a stress-relieving layer (32) that is disposed between the organic light-emitting device and the color-converting filters, the stress-relieving layer being patterned to have walls that are disposed at the edges of the color-converting filters and to have openings between the walls (col. 9, lines 26-47) (The walls formed where the stress-relieving layer 32 transitions between the region corresponding to color filter 31b and the shading

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portions 31a, and transitions between the region corresponding to the shading portions 31a and the next color filter 31c. The stress-relieving layer 32 forms wells or openings between the walls, in each area corresponding to a color filter.)

8. In figure 1B, Yamazaki shows an unlabeled space between layer (33) and the filter layers (31a-d). It further discusses that the bottom substrate and the upper substrate area sealed together using an adhesive (col. 12, lines 43-51). However, Yamazaki does not expressly disclose an adhesive disposed between the organic light-emitting device and the color-converting filters.

9. Kimura, in figure 9B, teaches an organic EL display having a bottom substrate (4001), a TFT (4014) an organic EL device (4016, 4018, 4019) and an upper substrate (4009) where the open space between the bottom substrate (4001) and upper substrate (4009) is filled with an adhesive (4023) for bonding and sealing the display and to absorb moisture in the device (col. 24, line 35-46). If a similar adhesive were added to the Yamazaki display, filling the unlabeled space between layer (33) and the filter layers (31a-d), it would extend into the well or opening in the stress-relieving layer (32) in each area corresponding to a color filter.

10. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Yamazaki organic EL display where the adhesive taught by Kimura fills the unlabeled space between layer 33 and the filter layers (31a-d) to bond and seal the display and to absorb moisture in the device.

11. With regard to claim 10, in the combined Yamazaki and Kimura organic EL display, taught in the rejection of claim 8, the stress-relieving layer (Yamazaki, col. 9,

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lines 26-38) has a lower refractive index than the adhesive (Kimura, col. 24, lines 35-46) (based on the disclosed materials).

12. With regard to claim 11, in figure 1B, Yamazaki discloses that the walls of the stress-relieving layer (32) have a reverse tapered shape relative to the color filter layers alone, or the color filter layers and the color-converting layers, of the color-converting filters (31b-d) (col. 9, lines 26-38).

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki and Kimura, as applied to claim 8, and further in view of Inukai, U.S. Patent Application Publication No. 2001/0038367 A1.

14. With regard to claim 9, the stress-relieving layer in the combined Yamazaki and Kimura device, described in the rejection of claim 8, is taught by Yamazaki to relieve physical stress (col. 4, lines 35-44). To achieve this, the layer has a high elasticity. The adhesive taught by Kimura, is intended to bond the substrates and has a lower elasticity than the stress-relieving layer, based on its intended use and the materials disclosed (Kimura, col. 24, lines 35-46). However, Yamazaki does not disclose that the stress-relieving layer is a resin.

15. Inukai, in figure 13, teaches an organic EL display having insulating layer that may be comprised of silicon oxide, silicone oxynitride (the material of the Yamazaki stress-relieving layer) or a resin [0284]. One having ordinary skill would understand, based on this teaching, that a resin could be substituted for the stress-relieving layer in the Yamazaki and Kimura device as long as it had the same stress-relieving properties.

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16. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Yamazaki and Kimura organic EL display, discussed in the rejection of claim 8, where the stress-relieving layer comprises a resin, because this material can be used in place of the material used by Yamazaki, as taught by Inukai.

Allowable Subject Matter

17. Claims 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. With regard to claim 12, the prior art of record does not teach or fairly suggest an organic electroluminescent device having a stress-relieving layer, where the stress relieving layer is black, together with all other claim limitations.

19. With regard to claims 13 and 14, the prior art of record does not teach or fairly suggest an organic electroluminescent device having a stress-relieving layer, where the stress relieving layer has fine particles dispersed therein that promote thermal conductivity, or where the stress-relieving layer is formed from a polymeric material having fine carbon particles dispersed therein to promote thermal conductivity, together with other claim limitations.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Hollweg whose telephone number is (571) 270-1739. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm E.S.T..

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TH/

/NIMESHKUMAR D. PATEL/

Supervisory Patent Examiner, Art Unit 2879